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AMENDMENT TO THE DRAWINGS

The attached sheet of drawings includes changes to Figure 3B. This sheet, which includes Figures 3A and 3B, replaces the original sheet including Figures 3A and 3B. In Figure 3B, previously omitted reference number 290 has been added.

Attachment: Replacement Sheet

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REMARKS

Claims 1-3, 5-7, 13 and 16-20 are currently amended. Claims 1-20 remain before the Examiner for reconsideration.

In the Office Action mailed January 19, 2006, the Examiner required Applicants to make specific reference to the prior filed patent application in the present application. Specifically, the Examiner indicated:

If applicant desires to claim the benefit of a prior-filed application under 35 U.S.C. 119(e), a specific reference to the prior-filed application in compliance with 37 CFR 1.78(a) must be included in the first sentence(s) of the specification following the title or in an application data sheet. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications.

If the instant application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3)

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a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a) (5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Applicants have amended the specification to insert a cross-reference to the related provisional patent application. As set forth in the Declaration and Power of Attorney for Patent Application filed on February 24, 2004 with this application, the inventors claimed the benefit under 35 U.S.C. § 119(e) of U.S. Provisional Patent Application Serial No. 60/529,351 filed December 12, 2003.

The Examiner objected to the listing of references in the specification as being a not proper information disclosure statement. Specifically, the Examiner indicated:

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

The three references identified in the Background of the Invention are all owned by the assignee of Applicants and have been brought to the Examiner's attention because they are

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examples of infrared fluid sensors or analyzers. Whether the Examiner chooses to consider them is entirely his decision.

With regard to the Oath or Declaration, the Examiner indicated:

When applicant states that the post office address is the "same" as residence applicant's representative should keep in mind that a "residence" is a city and state or foreign country. The superfluous information given for residence is accepted as constituting a mailing address. The Office has been able to discern the city and state or foreign country of residence from the information supplied. See the requirements of 37 CFR 1.63(c)(1) as amended effective November 7, 2000.

Applicants acknowledge with gratitude the Examiner's indication.

In the Office Action mailed January 19, 2006, the Examiner objected to the drawings. Specifically, the Examiner asserted that:

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **290**. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Applicants have submitted one replacement sheet of drawings wherein reference number 290 is set forth in Figure 3B. Applicants respectfully assert that no new matter is added in the replacement sheet.

The Examiner objected to the specification. Specifically, the Examiner indicated that:

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The disclosure is objected to because of the following informalities: paragraph [0043], "intrinsically save" where --intrinsically safe-- is meant. Appropriate correction is required.

Applicants have amended paragraph [0043] of the specification to obviate the Examiner's objection to the disclosure.

Claims 3, 16 and 18 were objected to by the Examiner due to informalities. Specifically, the Examiner indicated that:

Claim 3 is objected to because of the following informalities: "source in an" where --source is an-- is meant. Appropriate correction is required.

Claim 16 is objected to because of the following informalities: "and" is missing from the third line. Appropriate correction is required.

Claim 18 is objected to because of the following informalities: "to be place in" where --to be placed in-- is meant. Appropriate correction is required."

Applicants have amended Claims 3, 16 and 18 to obviate the Examiner's objection.

The Examiner rejected Claim 12 under 35 U.S.C. 112, first paragraph, "as failing to comply with the enablement requirement." Specifically, the Examiner asserted that:

The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not describe an energy source which emits energy in the visible light spectrum for the purpose of interaction.

Applicants respectfully traverse the Examiner's rejection.

Applicant respectfully asserts that there is clear support in the specification for the phrase, "the energy source emits energy in the visible light spectrum to interact with the analyte", as set forth in Claim 12. In paragraph [0042] of the specification, for example, the following is stated:

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Similarly, other information can be transmitted by, for example, varying the pulse/duration of infrared energy source 230. Infrared energy source 230 can also, for example, be modulated/pulsed to transmit information in a digital format. Infrared energy source 230 can emit light in the visible spectrum so that a user can directly visualize the signal through window 260 [emphasis added].

One skilled in the art can readily incorporate such a light source into the sensors of the present invention without undue experimentation.

The Examiner rejected Claim 17 under 35 U.S.C. 112, second paragraph, "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." Specifically, the Examiner asserted that:

It is not clear whether the claim is infringed if the sensor has the capability of entry upon switch activation recited or when the activation actually causes the entry. IPXL Holdings LLC v. Amazon.com Inc., 77 USPQ2d 1140 (CAFC 2005).

Applicants have amended Claim 17 to obviate the Examiner's rejection.

Claims 1, 2, and 13 were rejected by the Examiner under 35 U.S.C. 102(b) "as being clearly anticipated by Detwiler *et al.* (US005321492A)." Specifically, the Examiner asserted that:

With respect to independent claim 1, Detwiler *et al.* discloses a method of communicating information from a sensor (column 1, lines 10-11), the sensor (Fig. 1) including a source of energy 14 within a housing 10, energy 26 from the energy source 14 interacting with an analyte in a detectable manner (reflectance, column 2, lines 54-56), the sensor further having at least one transmissive section 18 in the housing 10 through which energy 26 can be transmitted. The method of Detwiler *et al.* comprises the step of modulating the emission of energy 26 from the energy source 14 in a manner that corresponds to information to be transmitted from the sensor through the transmissive section 18 (column 3, lines 58-63).

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With respect to dependent claim 2, the sensor in the method of Detwiler *et al.* has at least a sensing mode as recited (column 3, lines 46-57) and a communications mode as recited (see rejection of claim 1). The method of Detwiler *et al.* further comprises the step of initiating the communication mode by placing an activator 126 in operative connection with the sensor (Fig. 2, column 4, lines 38-63).

With respect to independent claim 13, Detwiler *et al.* discloses a sensor (Fig. 1) for detecting the presence of an analyte in an environment being tested (column 2, lines 40-43) comprising a housing 10, an energy source 14 within the housing, at least one detector 20 within the housing adapted to detect interaction between the energy 26 emitted by the energy source 14 and the analyte (column 3, lines 49-57), a transmissive section 18 in the housing 10 through which energy 26 emitted from the energy source 14 can be transmitted, and a controller 16 within the housing 10 in operative connection with the energy source 14 to modulate emission of energy 26 from the energy source in a manner to communicate information through the transmissive section 18 (column 3, lines 58-63).

Applicants respectfully traverse the Examiner's rejection.

To assert anticipation under Section 102(b) the cases hold that the Examiner:

must show that each element of the claim in issue is found, either expressly described or under principles on inherency, in a single prior art reference, or, that the claimed invention was previously known or embodied in a single prior art device or practice.

Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. Denied, 465 U.S. 1026 (1984); Tyler Refrigeration v. Kysor Industrial Corp., 777 F.2d 687, 689, 227 USPQ 845, 846-47 (Fed. Cir. 1984) (judgment of anticipation reversed). "In deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in the light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference." Lindemann, 730 F.2d at 1458, 221 USPQ at 485; Kalman, 713 F.2d at 771, 218 USPQ at 789.

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"The test for determining if a reference anticipates a claim of a patent is whether the reference contains within its four corners adequate directions for the practice of the patent claim" Kistler Instrument A.G. v. United States, 628 F.2d 1303, 1311, 203 USPQ 511, 519, aff'd, 211 USPQ 920 (Ct. Cl. 1980). The reference, whether foreign or domestic, patent or otherwise, must be construed strictly for what it "clearly and definitely discloses." Application of Boling, 292 F.2d 306, 310-11, 130 USPQ 161, 164 (CCPA 1961); Aluminum Co. of Am. v. Sperry Products, Inc., 285 F.2d 911, 922, 127 USPQ 394, 403 (6th Cir. 1960), cert. denied, 368 U.S. 890 (1961). A patent is not anticipated by a reference "unless the latter exhibits the invention in such full, clear and exact terms as to enable any person skilled in the art to practice it without making experiments." 285 F.2d at 922, 127 USPQ at 403.

Applicants respectfully assert that, under the appropriate standard as set forth above, Detwiler does not anticipate the present invention. In that regard, Detwiler discloses a dual function readhead 10 for reading the level of analyte of a specimen. The specimen or reagent strip is placed in a slot and an energy source 14 projects a beam of light onto the reagent strip. Light reflected from the reagent strip is detected by a photodetector 20 which collects the reflectance data and transmits it to a microprocessor 16 for analysis. Alternatively, microprocessor 16 may modulate the light emanating from energy source 14 and transmit a serial data stream to a decoder interface 12 for further analysis.

With respect to Claim 1, as amended, and the claims dependent thereon, Detwiler does not disclose or suggest a method of communicating information from a sensor including the steps of: placing a calibration cap in operative connection with the sensor; communicating a wireless signal from the calibration cap to the sensor to place the sensor in a calibration mode; modulating the emission of energy from the energy source in a manner that corresponds to information related to the calibration mode to be transmitted

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from the sensor through the transmissive section; receiving the modulated emission of energy transmitted through the transmissive section formed in the explosion-proof housing by a detector on the calibration cap; and displaying information corresponding to the modulated emission of energy on a display of the calibration cap.

With respect to Claim 13, as amended, Detwiler does not disclose or suggest a sensor for detecting the presence of an analyte in an environment being tested including an explosion-proof housing and at least a first switch within the housing, wherein the sensor has at least a sensing mode in which the energy source operates to interact with analyte that may be present in the test environment and a communication mode in which the controller modulates the energy source to communicate information through the window; and wherein the first switch is adapted to be activated from outside the housing by placing a magnet in operative connection with the housing to cause the sensor to enter the communication mode.

Claims 3, 4, 12, and 14-16 were rejected by the Examiner under 35 U.S.C. 103(a) "as being unpatentable over Detwiler et al. (US005321492A) in view of Winkler et al. (US005923035A)." Specifically, the Examiner asserted that:

With respect to dependent claim 3, the energy source 14 in the method of Detwiler et al. is an infrared energy source (column 3, lines 44-45) and the activator 126 initiates the communication mode in a wireless manner (e.g., column 5, lines 10-16), but the transmissive section 18 is not a window and the housing 10 is not explosion-proof. Winkler et al. discloses a sensor (Fig.) including an infrared energy source 1, a gas-tight housing 40 intended for extreme conditions including explosive gases and gas mixtures, and transmissive section 12 in the form of a window. Winkler et al. illustrates lines from detectors 3, 4 but does not otherwise describe the communication information from the sensor outward from the housing 40. Since the method of Detwiler et al. provides a convenient method of communicating information using the energy source within the housing to avoid bulky electrical transmission (column 2, lines 20-28) which, in the method of Winkler et al. would raise an explosion risk, it would have been

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obvious to one of ordinary skill in the art to modify the method of Detwiler et al. by applying it to the sensor of Winkler et al. such that infrared energy source 1 was modulated to communicate information through the window 12 when not employed to interact with an analyte as otherwise described. The wireless activator 126 in the method of Detwiler et al. retains its utility in the extreme conditions of the sensor of Winkler et al.

With respect to dependent claim 4, the emission of energy from the infrared energy sources disclosed by Detwiler et al. and Winkler et al. (the incandescent lamp may be considered to have some emission in the visible range of the spectrum) is a choice within the ordinary skill in the art in view of such concerns as the detector employed, directivity desired, and the like.

With respect to dependent claim 12, the emission of energy from the energy source disclosed by Detwiler et al. is in the infrared but Winkler et al. shows with the incandescent lamp, which may be considered to have some emission in the visible range of the spectrum, that such an energy source may emit also energy in the visible light spectrum without any untoward effect. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to specify that the energy source in a method as suggested by Detwiler et al. and Winkler et al. would emit energy in the visible light spectrum.

With respect to dependent claim 14, the sensor of Detwiler et al. is an infrared sensor and the energy source is an infrared energy source (column 3, lines 44-45), but the transmissive section 18 is not a window. Winkler et al. discloses a sensor (Fig.) including an infrared energy source 1, a gas-tight housing 40 intended for extreme conditions including explosive gases and gas mixtures, and transmissive section 12 in the form of a window. Winkler et al. illustrates lines from detectors 3, 4 but does not otherwise describe the communication of information from the sensor outward from the housing 40. Since the sensor of Detwiler et al. provides a convenient method of communicating information using the energy source within the housing to avoid bulky electrical transmission (column 2, lines 20-28) which, in the sensor of Winkler et al. would raise an explosion risk, it would have been obvious to one of ordinary skill in the art to modify the sensor of Detwiler et al. by applying its controller to the sensor of Winkler et al. such that infrared energy source 1 was modulated to communicate information through the window 12 when not employed to interact with an analyte as otherwise described.

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With respect to dependent claim 15, the housing 40 in the sensor of Winkler et al. is considered explosion-proof.

With respect to dependent claim 16, the sensor of Detwiler et al. has at least a sensing mode as recited (column 3, lines 46-57) and a communications mode as recited (see rejection of claim 1). The sensor of Detwiler et al. further comprises at least one switch (in microprocessor 16) that can be activated as recited (column 4, lines 38-63).

Applicants respectfully traverse the Examiner's rejection for the reasons set forth above. Without specifically addressing the deficiencies of Winkler, Winkler does not overcome the deficiencies of Detwiler set forth above.

The Examiner also rejected Claims 17 and 18 under 35 U.S.C. 103(a) "as being unpatentable over Detwiler et al. (US005321492A) in view of Winkler et al. (US005923035A) and Schuldt (US005025653A)." Specifically, the Examiner asserted that:

With respect to dependent claim 17, the activation of the switch in the sensor of Detwiler et al. does not cause entry of a calibration mode. However, in the gas detection art represented by Winkler et al., Schuldt shows that it is known in a sensor 12 (Fig. 3) to provide a switch that can be activated in a wireless manner from outside the housing to cause the sensor to enter a communications mode and to enter a calibration mode (column 8, line 47 to column 10, line 52). Since the sensor of Detwiler et al. already uses the switch to enter a communications mode, and the utility of a calibration mode for a sensor is established by Schuldt, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sensor suggested by Detwiler et al. and Winkler et al. to specify that microprocessor 6, when activated, caused the sensor to enter a calibration mode.

With respect to independent claim 18, Detwiler et al. discloses an infrared sensor system (Fig. 1) comprising an infrared sensor comprising a housing 10, an infrared energy source 14 within the housing, at least one detector 20 within the housing 10 adapted to detect interaction between energy 26 emitted by the source 14 and the analyte, an aperture 18 in the housing 10 through which energy 26 emitted from the source 14 can be

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transmitted, a controller 16 within the housing 10 in operative connection with the source 14 to modulate emission of energy 26 from the source 14, and at least one switch (in the microprocessor) operable to change a mode of the sensor from a sensing mode as recited to a communication mode in which the controller 6 modulates the energy source 14 to communicate information through the aperture. The aperture in the sensor of Detwiler et al. is not a window, but see the rejection of claims 3 and 14 for the suggestion Winkler et al. makes for providing a window 12. The second mode of the sensor of Detwiler et al. is not a calibration mode, but see the rejection of claim 17 for the suggestion Schuldt makes for a calibration mode. Schuldt further discloses a calibration cap 25 (Fig. 3) adapted to be placed in operative connection with the sensor housing 12. The calibration cap 25 of Schuldt comprises at least one activator (starting with the motion of pin 34) adapted to affect a switch in a wireless manner to place the sensor in a calibration mode, see the rejection of claim 17. Since the system of Detwiler et al. already uses the switch to enter a communications mode, and the utility of a calibration mode for a sensor is established by Schuldt, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system suggested by Detwiler et al. and Winkler et al. to specify the inclusion of a calibration cap comprising at least one activator adapted to affect microprocessor 6 in a wireless manner (by the light transmission described by Schuldt) such that the sensor entered a calibration mode.

With respect to Claim 17, Applicants respectfully assert that Schuldt does not overcome the deficiencies of Detwiler et al. set forth above. With respect to Claim 18, Applicants have amended Claim 18 to include the limitations of claim 19. Applicants respectfully submit that Claim 18 is allowable as amended.

Finally, the Examiner indicated that Claims 5-11, 19, and 20 are objected to "as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." Specifically, the Examiner asserted that:

The following is a statement of reasons for the indication of allowable subject matter: in combination with a method of communicating

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or infrared sensor system as otherwise described, no magnets are suggested;
the calibration cap suggested by Schuldt has no detector or display.

Applicants respectfully acknowledge the indication of allowable subject matter.
Applicants respectfully assert that in view of the above amendments and remarks, the
remaining claims are allowable.

In that regard, in view of the above amendments and remarks, Applicants
respectfully request that the Examiner withdraw his objections and rejections of the claims,
indicate the allowability of the claims and arrange for an official Notice of Allowance to
be issued in due course.

Respectfully submitted,

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